

REMARKS

The applicant respectfully requests reconsideration in view of the amendment and the following remarks. The applicant has incorporated claim 3 into claim 1. Support for newly added claims 26-44 can be found in the original claims. Support for newly added claims 45-47 can be found in the published specification in paragraph no. [0131]. The applicant has added twenty-two dependent claims and cancelled on claim. The applicant authorizes the USPTO to charge the applicant's deposit account for the extra 21 claims added.

Claims 3 and 13 are rejected under 35 U.S.C. 112, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-3, 9, 10, 12, 14, 15, 24, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Pineri (WO 2002/046278 using US 2004/0058216 for translation and citation). Claims 4, 5, 7, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pineri and further in view of US 6,300,000 (Cavalca et al.). Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pineri in view of Cavalca et al. and further in view of US 4,012,303 (D'Agostino et al.). Claim 8, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pineri and further in view of US 5,525,436 (Savinell et al.). Claims 16-18, 20, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pineri and further in view of US 6,399,234 (Bonk et al.). Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pineri and further in view of Bonk et al. and JP 2001-196082 (Okamoto et al.).

Rejections under 35 U.S.C. §112

Claims 3 and 13 are rejected under 35 U.S.C. 112, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the

invention. The applicant believes that the claims as amended are in compliance with 35 U.S.C. 112, second paragraph.

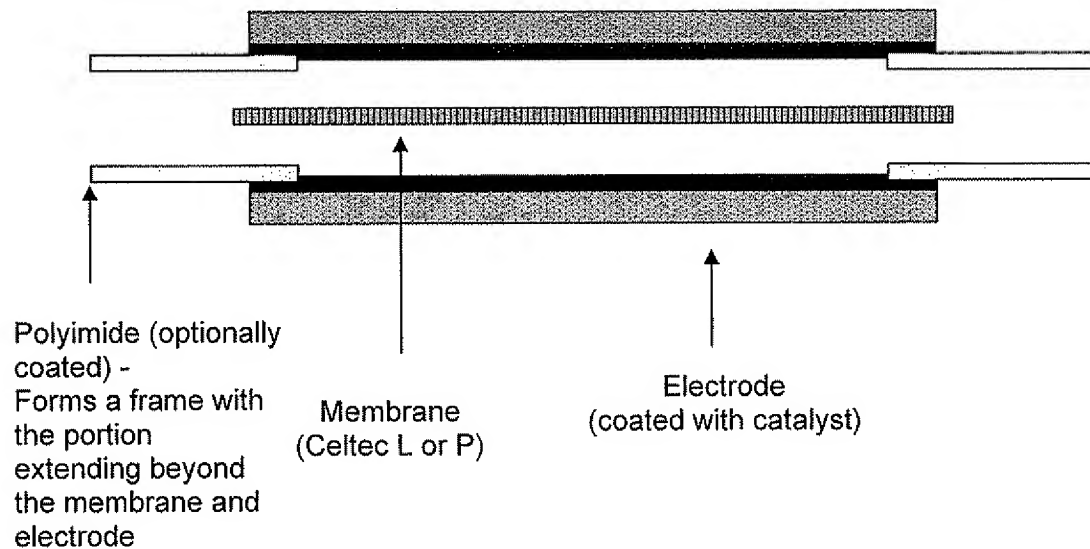
Rejections under 35 U.S.C. §102(b)

Claims 1-3, 9, 10, 12, 14, 15, 24, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Pineri (WO 2002/046278 using US 2004/0058216 for translation and citation).

The instant invention is directed to *a membrane electrode assembly comprising two electrochemically active electrodes separated by a polymer electrolyte membrane, characterized in that there is a polyimide layer on each of the two surfaces of the polymer electrolyte membrane that are in contact with the electrodes and wherein said polyimide layers on the polymer electrolyte membrane each form a frame structure.*

In other words, the polyimide film is located between the membrane and the electrode acting (i) as a subgasket material and (ii) enhancing the mechanical properties of the membrane. The core of the instant invention can be the applicant's polyazole/phosphoric acid electrolyte membrane (such as Celtec[®] L or Celtec[®] P) which is not explicitly mentioned in claim 1 but covered by the more general term "*polymer electrolyte membrane*". Celtec[®] L or Celtec[®] P membranes are very soft and do not have a mechanical strength as compared to the Nafion[®] based materials. Hence in order to support the membrane the instant invention was made.

The polyimide layer which is optionally coated are in direct contact with the membrane and electrode. The frame is the portion of the polyimide layer which extends beyond the membrane and electrode.



In addition, the polyimide layer has a frame structure. Pineri covers the entire surface of the “filled”, porous matrix/substrate and does not disclose a frame structure as is required by the applicant’s claimed invention. For the above reasons, this rejection should be withdrawn.

Rejections under 35 U.S.C. §103(a)

Claims 4, 5, 7, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pineri and further in view of US 6,300,000 (Cavalca et al.). Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pineri in view of Cavalca et al. and further in view of US 4,012,303 (D’Agostino et al.). Claim 8, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pineri and further in view of US 5,525,436 (Savinell et al.). Claims 16-18, 20, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pineri and further in view of US 6,399,234 (Bonk et al.). Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pineri and further in view of Bonk et al. and JP 2001-196082 (Okamoto et al.). Since claim 3 was not rejected over these references and the applicant has incorporated claim 3 into independent claim 1, these rejections should be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

A two month extension fee has been paid. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 15588-00020-US from which the undersigned is authorized to draw.

Dated: August 28, 2009

Respectfully submitted,

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